

Article published Oct 8, 2005

Teachers get hands-on training in forensics
In-service shows how to spice up science

A group of teachers from the area got to do an extra-cool "in-service" project this week — learning hands-on forensics experiments they can do in their own classrooms.

In a science lab at Boise State University on Thursday and Friday, the teachers inspected lipstick stains and tooth marks on styrofoam cups. They learned to adhere a fingerprint permanently to a glass slide with molecules of Super Glue, made necklaces with their own DNA and analyzed the color additives in black inks so they could be traced, among other crime-solving activities.

Though the experiments were somewhat simplified for classroom use, said Jason Besecker, one BSU master's student in biology who led the labs, the science was sound and basically the same as crime scene investigators use in their work.

"It's the same science, the same principles," said Besecker, who plans to continue his studies and work in a crime lab doing DNA analysis one day.

Heidi Pluska teaches chemistry at Boise High School. She'll be able to translate many of the forensic experiments to her own classroom. She plans to set up a crime scene there, complete with evidence, and have her students solve the crime. When she asked her students once how many of them were interested in forensic science, every student in the room raised his or her hand, she said.

Pluska said she was enjoying the hands-on nature of the in-service days on campus and thinks her students will respond to the experiments, too, particularly now, when crime scene investigation shows are rampant on television and can help lure future scientists to the field.

"If there's a problem," said Pluska, "kids want to solve it."

Pluska and Johanna DeJong, who teaches ninth-grade biology in a special accelerated program at North Junior High School, agreed the experiments they'd been doing at BSU were an improvement over in-service days in the past. Instead of dusting pop cans for fingerprints and like activities, they might have been studying standardized test scores or sitting in on technology-in-the-classroom seminars.

DeJong said lots of students in her program at North are science-savvy and come from homes where one or both parents work in scientific fields. Still, public school experiments have to stay within a budget. Many of the experiments the teachers did at BSU — making thumbprints on white balloons, then inflating them for close inspection — are useful, though they don't cost a lot. Creating DNA necklaces was a little more elaborate, DeJong said. The teachers learned to isolate strands of their own DNA, then put the white, thread-like bits into tiny vials they could wear around their necks.

Master's student Patrick Aranda joined Besecker in leading the group of teachers under the guidance of biology professor and DNA expert Greg Hampikian. Aranda and Besecker won Forensic Science Teaching Fellowships to attend outreach programs last summer at the University of Connecticut. On campus, at the Center for Applied Genomics and Technology, they learned how to run workshops for teachers. Bio-Rad, a biotechnology company, funded Aranda and Besecker's fellowships and donated supplies for the teachers' labs.